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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/539,615

10/26/2005

Shu Kobayashi

2005-0918A

4264

513

7590

08/20/2008

WENDEROTH, LIND & PONACK, L.L.P.

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SUITE 800

WASHINGTON, DC 20006-1021

EXAMINER

QIAN, YUN

ART UNIT

PAPER NUMBER

4162

MAIL DATE

DELIVERY MODE

08/20/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/539,615	Applicant(s) KOBAYASHI, SHU	
	Examiner YUN QIAN	Art Unit 4162	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/17/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Objections

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Regarding abstract line 1, should the phrase "Polymer-immobilized form amides..." be read as "polymer-immobilized formamides..."?

Regarding Specification ([0022], line 8), should the page number be 4251 instead of 425 for the cited reference (S. Kobayashi, et. al. Tetrahedron Letters)? Appropriate correction is required.

Regarding abstract and claim 1, the parentheses around the words should be removed.

Claim Objections

Claim 1 is objected to because of the following informalities: claim 1 contains parenthesis which should be removed. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 4, and 9-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrases of "...comprising any one of the...according to claim..." renders the claim indefinite because it is unclear whether the limitation following the phrase is part of the claimed invention. For the purpose of examination, these claims are considered according to any one of claim 1-3. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 4, and 9 are rejected under 35 U.S.C.102 (b) as being anticipated by Kondo et al. (Journal of polymer Science: Part A: Polymer Chemistry, Vol. 29, 243-249, 1991).

Kondo et al discloses polymeric formamides as instantly claimed. For example, the catalyst 7 in the reference taught by Kondo (Scheme 1, n=0, R=H, R'=CH₃) corresponds to the instant claim 2.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary

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skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-6, and 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo et al. (Journal of polymer Science: Part A: Polymer Chemistry, Vol. 29, 243-249, 1991) in view of Kobayashi et al (Journal of Organic Chemistry, Vol. 59, 6620-6628, 1994).

Although Kondo does not have the exact same compound as shown in the claim 3, Kondo does disclose a general methodology, which is same as the instant claim, for synthesizing any polymer-immobilized formamide. It would have been obvious to one of ordinary skill in the art at the time invention was made to apply the method of Kondo to synthesis the claimed compound. Therefore, the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made.

Regarding claims 4-6, and 9-14, Kobayashi et al (JOC article published in 1994) discloses a method of synthesize the ally alcohol by reacting aldehyde with allyl trichlorosilane in N, N-dimethylformamide (DMF). DMF acts as a catalyst and the polar solvent in this reaction. Other polar solvent such as can also be used in the reaction (Abstract and Table 2, page 6622). However, he fails to teach using polymer-supported formamide as the catalyst for the reaction.

The solid supported catalysts are widely applied in organic chemistry for replacing support-free catalyst, because they are easily recovered, reused, and eliminate the problem of catalyst contamination in product. They are equivalent.

It would have been obvious to one of ordinary skill in the art at the time invention was made to use the polymer-supported formamides by Kondo with the process of Kobayashi for synthesizing allyl alcohol, because both teach known methods and would have a reasonable expectation of success. Therefore, the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made.

Claims 3, 7-10, and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo et al. (Journal of polymer Science: Part A: Polymer Chemistry, Vol. 29, 243-249, 1991) in view of Kobayashi (Journal of the American Chemical Society, Vol.123, No. 39, 9493-9499, 2001).

Although Kondo does not have the exact same compound as shown in the claim 3, Kondo does disclose a general methodology, which is same as the instant claim, for synthesizing any polymer-immobilized formamide. It would have been obvious to one of ordinary skill in the art at the time invention was made to apply the method of Kondo to synthesis the claimed compound. Therefore, the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made.

Regarding claims 7-9 and 15-18, Kobayashi et al (JACS article in 2001) discloses a method of synthesize the homoallylic benzoylhydrazines by reacting benzoyldrazones with allyl trichlorosilane in DMF. However, he fails to teach using polymer-supported formamide as the catalyst for the reaction (Abstract).

It would have been obvious to one of ordinary skill in the art at the time invention was made to use the polymer-supported formamides by Kondo with the process of Kobayashi for synthesizing allyl hydrazines, because both teach known methods and would have a reasonable expectation of success. Therefore, the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to YUN QIAN whose telephone number is (571)270-5834. The examiner can normally be reached on Monday-Thursday, 10:00am -4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on 571-272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

YQ

/Jennifer McNeil/
Supervisory Patent Examiner, Art Unit 4162

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